

Notice of Allowability

Application No.

09/835,663

Examiner

Julian Chang

Applicant(s)

WEIN ET AL.

Art Unit

2152

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/08/2006.
2. ☒ The allowed claim(s) is/are 21, 23-27, 29-35 ~~17-37~~ and 39.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 11/08/2006
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


BUNJOB JAROENCHONWANIT
SUPERVISORY PATENT EXAMINER

DETAILED ACTION

1. This Office action is responsive to communication filed on 11/08/06.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with David H. Judson on 01/31/2007.

3. The application has been amended as follows:
4. Please amend the Specification as follows to deactivate the hyperlinks:
 - a. On page 9, line 18: ~~http://~~.
 - b. On page 11, lines 19, 15, 25 and 26: ~~http://~~.
 - c. On page 12, lines 2, 3, 7, 16 and 18: ~~http://~~.
 - d. On page 18, line 30: ~~http://~~.
 - e. On page 19, lines 7 and 21: ~~http://~~.
 - f. On page 20, lines 12 and 14: ~~http://~~.
 - g. On page 29, line 3: ~~http://~~.
 - h. On page 31, line 10: ~~http://~~.
 - i. On page 32, line 29: ~~http://~~.

5. Please amend claims 17, 25 and 33 as below, and cancel claims 22, 28, 36-38 and 40-43.

17. A method of content delivery operative in a content delivery network on behalf of participating content providers, the content delivery network managed by a content delivery network service provider and comprising a plurality of content servers and a domain name service (DNS), and wherein participating content providers identify given content to be delivered over the content delivery network, comprising:

associating a content provider domain or subdomain with a domain managed by the content delivery network service provider so that DNS queries to the content provider domain or subdomain are resolved by the content delivery network domain name service;

for a given piece of content identified by a participating content provider, specifying a given content control to be applied to the given piece of content prior to serving the given piece of content from the content delivery network, wherein the given content control is one of: (i) first data for specifying whether the given piece of content is to be cached at a content server in the content delivery network and, if so, for how long, (ii) second data identifying a domain of a server from which an instance of the given piece of content can be retrieved, and ~~(ii)~~ (iii) third data for associating the given piece of content with a given participating

Art Unit: 2152

content provider for accounting purposes, and (iv) fourth data that enforces a given authentication method or a given access control method;

communicating the given content control for the given piece of content to the plurality of content servers;

resolving a DNS query to the content provider domain or subdomain to an IP address associated with a given content server in the plurality of content servers, wherein the DNS query is resolved by the content delivery network domain name service using the domain managed by the content delivery network service provider in lieu of the content provider domain or subdomain; and

~~at the given content server of the plurality of content servers, receiving a request for the given piece of content, determining whether a participating content provider has specified a content control for the given piece of content and, if so, applying the given content control prior to serving the given piece of content from the given content server.~~

at the given content server of the plurality of content servers:

receiving a request for the given piece of content, wherein the request contains a host header;

determining whether a string in the host header is associated with a content control located within a set of content controls stored at the given content server; and

if a participating content provider has specified a content control for the given piece of content, as indicated by determining whether the string in the host header is associated with a content control located within a set

Art Unit: 2152

of content controls stored at the given content server, applying the given content control prior to serving the given piece of content from the given content server.

22. (Canceled).

25. A method of content delivery operative in a content delivery network on behalf of participating content providers, the content delivery network managed by a content delivery network service provider and comprising a plurality of content servers and a domain name service (DNS), and wherein participating content providers identify given content to be delivered over the content delivery network, comprising

aliasing a content provider domain to a domain managed by the content delivery network service provider so that DNS queries to the content provider domain are resolved by the content delivery network domain name service, wherein the content provider domain is part of a URL identifying a given piece of content published by the participating content provider;

for the given piece of content identified by a participating content provider, specifying a given content control to be applied to the given piece of content prior to serving the given piece of content from the content delivery network, wherein the given content control is one of: (i) first data for specifying whether the given piece of content is to be cached at a content server in the content delivery network and, if so, for how long, (ii) second data identifying a domain of a server

Art Unit: 2152

from which an instance of the given piece of content can be retrieved, ~~and (ii)~~ (iii) third data for associating the given piece of content with a given participating content provider for accounting purposes, and (iv) fourth data that invokes a security mechanism;

resolving a DNS query to the content provider domain to an IP address associated with a given content server in the plurality of content servers, wherein the DNS query is resolved by the content delivery network domain name service using the domain managed by the content delivery network service provider in lieu of the content provider domain; and

~~at the given content server of the plurality of content servers, receiving a request for the given piece of content, determining whether a participating content provider has specified a content control for the given piece of content and, if so, applying the given content control prior to serving the given piece of content from the given content server.~~

at the given content server of the plurality of content servers:

receiving a request for the given piece of content, wherein the request contains a host header;

determining whether a string in the host header is associated with a content control located within a set of content controls stored at the given content server; and

if a participating content provider has specified a content control for the given piece of content, as indicated by determining whether the string in the host header is associated with a content control located within a set

Art Unit: 2152

of content controls stored at the given content server, applying the given content control prior to serving the given piece of content from the given content server.

28. (Canceled).

33. A method of content delivery operative in a content delivery network on behalf of participating content providers, the content delivery network managed by a content delivery network service provider and comprising a plurality of content servers and a domain name service (DNS), and wherein participating content providers identifies a given content to be delivered over the content delivery network by aliasing a content provider domain to a domain managed by the content delivery network service provider so that DNS queries to the content provider domain are resolved by the content delivery network domain name service, comprising:

for the given piece of content identified by a participating content provider, specifying a given content control to be applied to the given piece of content prior to serving the given piece of content from the content delivery network, wherein the given content control is one of: (i) first data for specifying whether the given piece of content is to be cached at a content server in the content delivery network and, if so, for how long, (ii) second data identifying a domain of a server from which an instance of the given piece of content can be retrieved, and ~~(ii)~~ (iii) third data for associating the given piece of content with a given participating

Art Unit: 2152

content provider for accounting purposes, and (iv) fourth data that enforces a given authentication method or a given access control method;

communicating the given content control for the given piece of content to the plurality of content servers in the content delivery network;

resolving a DNS query to the content provider domain to an IP address associated with a given content server in the plurality of content servers, wherein the DNS query is resolved by the content delivery network domain name service using the domain managed by the content delivery network service provider in lieu of the content provider domain; and

~~at the given content server of the plurality of content servers, receiving a request for the given piece of content, and associating the given content control~~

at the given content server of the plurality of content servers:

receiving a request for the given piece of content, wherein the request contains a host header;

determining whether a string in the host header is associated with a content control located within a set of content controls stored at the given content server; and

if a participating content provider has specified a content control for the given piece of content, as indicated by determining whether the string in the host header is associated with a content control located within a set of content controls stored at the given content server, applying the given content control prior to serving the given piece of content from the given content server; and

Art Unit: 2152

serving the given piece of content from the given content server after the given content control has been applied associated.

36-38. (Canceled).

40-43. (Canceled).

Allowable Subject Matter

6. Claims 17-21, 23-27, 29-35 and 39 are allowed.

7. The following is an examiner's statement of reasons for allowance: The prior art of record fails to reasonably teach singly or in combination the invention as claimed in independent claims 17, 25 and 33. In particular, the prior art fails to teach determining whether a participating content provider has specified a content control for a given piece of content based on a string in a host header that is part of the incoming request for the given piece of content, and applying the content control at a given content server prior to serving the given piece of content to the requesting client.

The closest art of record, Downs, et al (US 6,226,618) discloses a digital rights management system for a content delivery system, wherein the content controls are enforced at the client following the delivery of the content.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should

Art Unit: 2152

preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian Chang whose telephone number is (571) 272-8631. The examiner can normally be reached on Monday thru Friday 8am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on (571) 272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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Art Unit: 2152

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